**Name:** Wanda Valdez

**Date:** 3-24-18

Midterm Lesson Plan

**Grade:** Pre-k

**Topic:** Conductor or insulator

**Objective:** students will test different materials to see if they are electrical conductors or insulator.

**Standards:**

4-PS3-2. Make observations to provide evidence that energy can be transferred from place

to place by sound, light, heat, and electric currents.

4-PS3-3. Ask questions and predict outcomes about the changes in energy that occur when objects collide

**Essential Question:** Which Materials Conduct Electricity or insulator?

**Materials:**

four pieces of coated electrical wire (preferably with alligator clips on each end of wires), one D battery, one Small light bulb

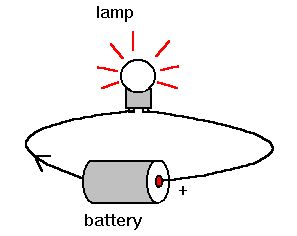
Various household items to test-paper clip, toothpick, aluminum foil, banana, soda can, copper penny, etc.

**Vocabulary:** conductors, insulator, circuit, electricity, light, copper, and wires.

**Lesson:**

Today I want to teach you about electrical currents. This only occur when a complete path is created to allow the current to flow continuously. There are many materials that can be used to “close” a circuit or allow current to flow. Materials that allow electric current to flow through easily are called conductors. Most metals including aluminum are good conductors of electricity as well as water. Materials that do not allow electric current to flow well are insulators. Most items made of plastic and rubber are insulators.

Here is how student have to assemble a close circuit.



**Explain:**

1**-** Students are going to create a simple closed circuit by connecting two wires to the battery and light bulb

2- Next students will test their items to see if they are conductors or insulators. These items are made of different materials such as metal, plastic, and wood.

3- Students are going to incorporate one item at a time into your circuit to test if it is a conductor or insulator. Start by disconnecting one alligator clip from the bulb and attaching the clip to the test item. Connect another wire to the test item and then back to the bulb. If the bulb lights, the test item is a conductor. If the bulb does not light, the test item is an insulator.

**Questions:**

What items produce light?

How do you call the items that do not produce light?

How does electric current flow through a circuit?

What are some examples of conductors?

What are some examples of insulators?

**Differentiation:**

**Assessment:** As children engage in the activity, the teacher model to the students and goes around checking for understanding and scaffolding as needed.